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Cognitive-Behavioural Bibliotherapy for Hypochondriasis: A Pilot Study

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Aims: The present study aims to determine whether cognitive-behavioural minimal contact bibliotherapy is acceptable to participants suffering from DSM-IV-TR hypochondriasis, and whether this intervention is able to reduce hypochondriacal complaints, as well as comorbid depressive complaints and trait anxiety. **Method:** Participants were assigned to either an immediate treatment condition, or subsequently to a waiting list condition. Participants were sent a book, *Doctor, I Hope it's Nothing Serious?*, containing cognitive behavioural theory and exercises. Measures were taken pre, post and at follow-up (after 3 months). Those in the waiting list group received a second pre-assessment, and were then enrolled in the bibliotherapy. **Results:** Results showed that participants were accepting of the cognitive-behavioural theory. Furthermore, results showed beneficial effects of the intervention: all effect measures decreased significantly over time, with the largest effect at post-assessment. However, a large amount of questionnaires were not returned. **Conclusion:** It is concluded that bibliotherapy may be an efficient aid in reducing hypochondriacal and comorbid complaints, but due to data attrition and methodological flaws should first be studied further.

Keywords: Bibliotherapy, hypochondriasis, psychoeducation, cognitive-behavioural treatment.

Introduction

Recent studies suggest the effectiveness of individual cognitive-behavioural interventions for hypochondriasis and also of short-term psychoeducational courses (Abramowitz and Braddock, 2008). It has been hypothesized (Gould, Clum and Shapiro, 1993) that the didactic and self-directed treatment strategies used in psychoeducation could also very well be imparted by bibliotherapy, an intervention in which patients are supplied with written self-help material that they can work through with or without therapist contact.

One study to date has investigated bibliotherapy for health anxiety (Jones, 2002). A total of 40 participants, suffering from health anxiety, as identified by their GPs, was randomized into two conditions: one receiving cognitive bibliotherapy and the other not. Results of this study showed a reduction in health anxiety after receiving bibliotherapy (Cohen's $d = 1.12$). Bibliotherapy has not yet been studied for DSM-IV-TR hypochondriasis.

The first aim of the present study is to find out whether cognitive-behavioural bibliotherapy is an acceptable treatment for people suffering from DSM-IV-TR hypochondriasis. A second aim

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is to test the hypothesis that cognitive-behavioural bibliotherapy is a more effective treatment than a waiting list in altering hypochondriacal complaints.

Method

Recruitment, screening, and assignment to conditions

By notifying the Dutch national press, recruitment of participants took place over a period of 3 years (2003–2005). Participants who expressed an interest were offered bibliotherapy by means of receiving a self-help book (described in more detail below). Forty-nine aspiring participants were screened for psychopathology during a structured 30-minute telephone interview that is a condensed version of the Anxiety Disorders Interview Schedule-IV: lifetime version (DiNardo, Brown and Barlow, 1994). The instrument has been reported to have good to excellent reliability (kappas.58-.81; Brown, DiNardo, Lehman and Campbell, 2001). During the interview, participants were also informed about the procedure, and were asked for their informed consent to participate in the study.

Inclusion criteria were: (1) the presence of a primary DSM-IV-TR diagnosis of hypochondriasis; (2) being over 18 years old; (3) speaking Dutch; and (4) willingness to participate actively in the course. Because the authors were not able to predict how many participants would ultimately be included in the study, the first 21 participants started in the immediate treatment (IT) condition. When more people agreed to take part in the study, they were assigned to a subsequent waiting list (WL) control group ($n = 19$). They waited for 6 weeks, a period lasting as long as the experimental period, and were then enrolled in bibliotherapy. Chi-square tests and *t*-tests showed that there were no significant differences between the two conditions at pre-assessment with regard to hypochondriacal complaints ($t = -.28$; $df = 38$; $p = .79$), trait anxiety ($t = .90$; $df = 37$; $p = .38$), and depressive complaints ($t = .48$; $df = 37$; $p = .63$).

Participants

A total of 40 participants started in the intervention. Of all the participants, 31 (78.1%) were female, and the mean age was 43.8 years ($SD = 13.4$). A total of 32 participants (79.7%) were cohabitating or married. Seventeen (42.7%) of the participants had a high educational level, 14 (34.9%) of the participants had a medium level of education, and 7 (17.9%) had a low educational level. Mean duration of hypochondriacal complaints is 14.2 years ($SD = 15.9$). *T*-tests and chi-square tests showed that there were no significant differences between the conditions regarding the demographic variables age ($t = 1.1$; $df = 38$; $p = .29$), gender ($\chi^2 = 2.9$; $df = 1$; $p = .09$), duration of hypochondriacal complaints ($t = .91$; $df = 37$; $p = .37$), or level of education ($\chi^2 = 5.8$; $df = 6$; $p = .48$). Two of the IT participants dropped out of the treatment, as did 5 WL participants.

Procedure

After returning the first pre-assessment, or the second pre-assessment (which only applied to the participants in the waiting list condition), participants were sent a book called: *Doctor, I hope it's nothing serious?* (Bouman, and Visser, 1993). This book consists of 100 pages and

is based on cognitive-behavioural theory of hypochondriasis, with accompanying exercises. Participants were asked to work through the book one chapter per week. They were informed that during the experimental period, a therapist (the first author) would be available to answer any questions the participants might have about the book and/or the exercises.

Measurements

Outcome measures. To address the question of effect of the bibliotherapy, repeated measures of several complaints were taken at pre-treatment, post-treatment and at 3-month follow-up.

Hypochondriasis. The Groningen Illness Attitude Scale (GIAS; Visser, 2000) is a self-report instrument consisting of 42 statements, measuring 4 aspects of hypochondriasis. The questionnaire has satisfactory discriminative validity, and strong convergent validity (Visser, 2000).

Trait anxiety. The Dutch authorized version of the trait scale of Spielberger's State Trait Anxiety Questionnaire (STAI) (Van der Ploeg, Defares and Spielberger, 1980) measures inter-individual differences in anxiety and consists of 20 items. The trait-scale has a Cronbach's α ranging between .91 (for college students) and .93 (for a patient norm group) (Van der Ploeg et al., 1980).

Depressive complaints. Beck's Depression Inventory (BDI) (Beck, Rush, Shaw and Emery, 1979) measures the severity of depressive symptoms and consists of 21 items. Cronbach's α's of this measure ranged from .73 to .92 within patient groups (Bouman, Luteijn, Albersnagel and Van der Ploeg, 1985).

To determine acceptability of the bibliotherapy, an evaluation questionnaire was administered at post-assessment. Questions were asked about each chapter of the book and the exercises described at the end of each chapter.

Results

Analytic plan

First, means and standard deviations of the evaluation questionnaire were computed, and *t*-tests were conducted. Second, multilevel analysis was used to determine whether the cognitive-behavioural bibliotherapy was able to reduce hypochondriasis, depressive complaints, and trait anxiety. Data of completers were used in the analysis. Results are shown in Table 1. Effect sizes between pre-assessment and post-assessment are also reported in this table.

Clinical significance was computed by means of reliable change scores (Jacobson and Truax, 1991). Results of this analysis are described in the extended report accompanying this short clinical report.

Missing data

A substantial amount of measurements were not returned by the participants. Of the 33 completers, 16 in the IT group and 10 in the WL group returned the post-assessments, and 11

Table 1. Mean scores and standard errors on the GIAS, the BDI, and the STAI over time

	Immediate treatment group			Waiting list group			
	T1 M (*SD*)	T3 M (*SD*)	T4 M (*SD*)	T1 M (*SD*)	T2 M (*SD*)	T3 M (*SD*)	T4 M (*SD*)
GIAS	96.4 (27.9)	71.5 (39.7)	62.5 (31.7)	98.8 (27.5)	89.4 (30.14)	68.4 (31.6)	80.4 (20.7)
BDI	14.6 (8.5)	10.2 (8.2)	9.8 (7.7)	13.32 (8.2)	11.6 (7.4)	9.3 (7.0)	8.6 (6.4)
STAI	52.9 (10.4)	48.0 (11.9)	44.9 (4.1)	49.8 (10.7)	49.3 (12.4)	41.9 (10.5)	44.5 (10.3)

Note. T1 = pre-assessment 1; T2 = pre-assessment 2 of the waiting list group; T3 = post-assessment (after 6 weeks of bibliotherapy); T4 = follow-up assessment (after 3 months). GIAS = Groningen Illness Attitude Scale; BDI = Beck's Depression Inventory; STAI = the trait scale of the Spielberger's State Trait Anxiety Inventory.

completers of the IT group and 8 completers of the WL group returned their 3-month follow-up assessments. Therefore, results described in this section should be viewed with caution.

Acceptability

Participants rated the overall usefulness of the book with a mean score of 6.1 ($SD = 0.7$, range = 1–7). The answers regarding specific usefulness of the theoretical parts of the different chapters ranged from 5.4 to 6.1 ($M = 5.6$, $SD = 1.0$), and the answers regarding usefulness of the exercises ranged from 4.3 to 5.6 ($M = 4.7$, $SD = 1.5$), indicating that the theory was regarded as significantly ($t = 2.6$, $p = 0.02$) more useful. Almost all participants indicated they had read all chapters very attentively. About half of the participants had done the exercises once, and about a third had done them partly.

Effect of the bibliotherapy: multilevel analysis

Means and standard deviations of the scores over time are shown in Table 1.

Hypochondriacal complaints. With regard to the waiting list period, the scores did not decrease significantly ($t = 0.2$). With the groups taken together, at post-assessment, a decrease in hypochondriacal complaints was apparent ($t = -4.3$, $p < 0.00$). At the 3-month follow-up, scores in the immediate treatment group decreased somewhat further, while scores in the waiting list group increased, as can be seen in Table 1.

Depressive complaints. The scores on the BDI did not decrease during the waiting list period ($t = 0.0$). Between pre- and post-assessment, the mean score of the BDI did decrease significantly ($t = -2.3$, $p < .02$). At 3-month follow-up the scores remained stable.

Trait anxiety. Scores did not show a significant decrease after the waiting list period ($t = 0.3$) but did so, with the groups taken together, at post-test ($t = -2.4$, $p < .02$) for trait anxiety. Scores show slightly different patterns for both groups, with the immediate treatment group showing a slighter decrease over time, and the waiting list group showing a larger decrease at post-assessment and a non-significant increase in scores at follow-up.

Effect sizes (Cohen's *d*) of the decrease in complaints were computed for the outcome measures between pre-assessment and post-assessment. The effect size was large for the GIAS: 0.75. The effect sizes found for both the BDI (0.34), and the STAI (0.42) were medium.

Discussion

The first aim of the study was to examine whether cognitive-behavioural bibliotherapy was an acceptable intervention method for people suffering from hypochondriasis. A second aim was to test the hypothesis that cognitive-behavioural bibliotherapy was effective in treating hypochondriasis.

With regard to the first aim, we found that the participants valued the book substantially, by rating it and its separate chapters as highly useful. However, the large amount of missing data should be taken into account and all results mentioned in this discussion should be interpreted with caution.

With regard to the second aim of this study, bibliotherapy proved to be effective in reducing hypochondriacal complaints, depressive complaints, and trait anxiety. All outcome measures showed on average a significant decrease with the groups taken together in the analysis, for hypochondriasis, trait anxiety and depression at post-assessment and at follow-up. Patterns of decrease differed between the two groups, but these differences are difficult to examine at the later times of assessment because of the small amounts of participants who returned their assessments. However, these beneficial results indicate that hypochondriasis can be tackled by an unintrusive type of intervention in which no contact with a therapist is involved. This was shown earlier by Jones (2002), who found a reduction in hypochondriacal complaints after bibliotherapy as well.

There are several limitations to this study. First, there were many participants who did not return their questionnaires, so that nothing conclusive can be said about them. Second, generalizing the beneficial effects found in this study is difficult, because the patients participating in this study, who were self-referred, could be a subgroup of hypochondriacal patients. Furthermore, this was not a randomized clinical trial, and there was a lack of extensive diagnostic information due to the use of the ADIS as a short telephone interview. Interestingly, none of the participants made use of the possibility to contact the researchers and ask questions about the book's theory or exercises.

Despite these shortcomings, our results add to those of Jones (2002), suggesting that cognitive behavioural bibliotherapy is worthwhile investigating as an additional and cost-effective treatment option to reduce hypochondriacal symptoms.

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